DOCUMENT RESUME

VT 009 019

ED 032 415

Statewide Estimates and Projections of College Transfer, Associate Degree, Vocational Diploma and Apprenticeship Enrollments; Vocational-Technical-Adult Schools.
Wisconsin Coordinating Council for Higher Education, Madison.
Spons Agency-Office of Education (DHEW), Washington, D.C.
Report No-CCHE-91
Pub Date Jul 69
Note-23p.
EDRS Price MF-$0.25 HC-$1.25
Descriptors-Apprenticeships, Associate Degrees, *Enrollment Projections, *Post Secondary Education, Technical Education, Transfer Programs, Vocational Education
Identifiers-*Wisconsin

This report sets up the methodology for enrollment estimates and projections, and indicates the general expectation of future enrollments. Estimates for 1969, 1970 and 1971, useful for short-range instructional and budget planning are based on the number of high school graduates and of new students. Projections for 1972 through 1984, useful in long-range facility planning, are based on the number of births and of new students. The experience of the University of Wisconsin and Wisconsin State University campuses for 1964 to 1967 was used as a base for estimates and projections for college transfer and associate degree programs; the experience of the vocational diploma program from 1967 to 1968 was utilized for estimates and projections for that program. Apprenticeship and unclassified enrollments were derived by subtraction of the other programs from the total. Some estimates and projections are: (1) 1970--all programs, 37,755; college transfer, 5,149; associate degree, 12,846; vocational diploma, 12,995; apprenticeship and unclassified; 6,765; (2) 1984--all programs, 49,302; college transfer, 5,807; associate degree, 14,120; vocational diploma, 18,039; apprenticeship and unclassified, 11,336. (JK)

ED032415

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

CCHE #91
July 1969

STATEWIDE ESTIMATES AND PROJECTIONS OF COLLEGE TRANSFER, ASSOCIATE DEGREE, VOCATIONAL DIPLOMA AND APPRENTICESHIP ENROLLMENTS VOCATIONAL-TECHNICAL-ADULT SCHOOLS

(Funded under U.S. Office of Education
Comprehensive Facilities Planning Grant
Administered by the Higher Educational Aids Board)

VT009019

Wisconsin Coordinating Council
for Higher Education
732 North Midvale Boulevard
Madison, Wisconsin 53705

TABLE OF CONTENTS

	Page
INTRODUCTION	1
PROCEDURE	1
Short-Range Estimates	2
Long-Range Projections	8
ESTIMATES AND PROJECTIONS	10
Assumptions	15
The Estimates and Projections	16

LIST OF TABLES

Table		Page
I.	System of Weights for Graduating Class by Program	2
II.	Wisconsin Public and Private High School Graduates by County, 1960 - 1968	3
III.	Weighted High School Graduates by Program	5
IV.	Estimates of Four Program Total Enrollments Fall 1969, 1970, and 1971	6
V.	Estimates of College Transfer Enrollments Fall 1969, 1970, and 1971	6
VI.	Estimates of Associate Degree Enrollments Fall 1969, 1970, and 1971	7
VII.	Estimates of Vocational Diploma Enrollments Fall 1969, 1970, and 1971	7
VIII.	System of Weights by Age by Program	8
IX.	Weighted Ages by Program	9
X.	Projections of Four Program Total Enrollments Fall 1969 - Fall 1984	11
XI.	Projections of College Transfer Enrollments Fall 1969 - Fall 1984	12
XII.	Projections of Associate Degree Enrollments Fall 1969 - Fall 1984	13
XIII.	Projections of Vocational Diploma Enrollments Fall 1969 - Fall 1984	14
XIV.	Percentage Difference Between Estimates Based Upon High School Graduates and Projections Based Upon Ages, 1969 - 1971	16
XV.	New Student Fall Enrollments: Actual 1967 and 1968, Estimated 1969 - 1971, and Projected 1972 - 1984 All Vocational-Technical-Adult Schools and Percentage Increase Based Upon Fall 1968 Enrollments	17
XVI.	Total Student Fall Enrollments: Actual 1967 and 1968, Estimated 1969 - 1971 and Projected 1972 - 1984 All Vocational-Technical-Adult Schools and Percentage Increase Based Upon Fall 1968 Enrollments	18
XVII.	Comparison, Over Fall 1968, of Percentage Increases in Weighted Age Groups and of Estimated and Projected New Student Enrollments	19

INTRODUCTION

This report will not include the general methodology background for estimates and projections of enrollment. The reader may find that information in the report: Lins[1], "Estimates and Projections of Enrollment, The University of Wisconsin and Wisconsin State Universities," pages 1-8.

As will be noted in more detail later, accurate estimates and projections of enrollment for the Vocational-Technical-Adult schools are impossible at this time. Not only may it be assumed that the organization of the 18 area districts will affect the attractiveness of vocational-technical-adult programs and that there will be changes in the numbers and types of course sequences offered, but the past organization of the Vocational-Technical-Adult schools has not created a climate conducive to the collection and analyses of accurate or comparable enrollment data.

The first quite accurate accounting of enrollments in the four types of programs with which this report is concerned was reported in Hawthorne and Lins[2]. The programs are: College Transfer, Associate Degree, Vocational Diploma, and Apprenticeship. Thus historical enrollment trend data are not available for the Vocational-Technical-Adult schools. This being the case, one might expect that enrollment projections in which one can have a high degree of confidence cannot be available for another four or five years.

It would not be logical, at this time, to attempt projections by area district. Therefore the estimates and projections of this report are on a statewide basis for the four programs indicated.

PROCEDURE

Estimates of enrollment are useful for short-range instructional and budget planning. They cover the fall enrollments of 1969, 1970, and 1971.

Projections or *forecasts* of enrollment are useful in long-range facility planning to indicate the number of students which the schools might attract from the total persons expected to desire a post-secondary education should factors,

---

[1]L. J. Lins, "Estimates and Projections of Enrollment, The University of Wisconsin and Wisconsin State Universities" (Madison: Wisconsin Coordinating Council for Higher Education, CCHE #4, 1968, March 1968), pp. iii + 36.

[2]Phyllis Hawthorne; L. J. Lins, "College Transfer, Associate Degree, Vocational Diploma, and Apprenticeship Enrollments, Wisconsin Vocational, Technical, and Adult Education Schools, Fall 1967" (Madison: Wisconsin Coordinating Council for Higher Education, CCHE #9, 1969, January 1969), pp. xix + 89.

such as attendance and retention rates, follow the pattern of the assumptions relative to those factors. The projections cover the fall enrollments of 1972 through 1984.

Short-Range Estimates

The base for the short-range estimates is the number of high school graduates of Wisconsin public and private schools and the relationship between those high school graduates and new students. In the Vocational-Technical-Adult schools, one finds that the new students come from a quite wide range of dates of high school graduation and that the pattern of the proportions of new students from respective graduating classes varies from one program to another. Therefore, the most recent experience (fall of 1968) of distribution of new students by graduating classes which supplied the majority of the new students was used. The proportion from each graduating class varied; therefore the students were weighted by proportions from each class for each of the four programs. The weighting factors are presented in Table I.

TABLE I

SYSTEM OF WEIGHTS FOR GRADUATING CLASS* BY PROGRAM

Graduating Class	Total Enrollment	College Transfer	Associate Degree	Vocational Diploma
Immediately Preceding	.748	.751	.825	.768
One Year Previous	.139	.168	.123	.143
Two Years Previous	.064	.081	.052	.056
Three Years Previous	.049	--	--	.033

*These graduating classes supplied 72.6 percent of the new students in the total enrollment; 74.8 percent of the new college transfer students; 73.7 percent of the new associate degree students; and 70.9 percent of the new vocational diploma students.

In Table II are presented the public and private high school graduates by county in the state.

TABLE II

WISCONSIN PUBLIC AND PRIVATE HIGH SCHOOL GRADUATES BY COUNTY
1960 - 1968*

County	1960	1961	1962	1963	1964	1965	1966	1967	1968
Adams	66	71	66	52	78	86	87	76	93
Ashland	281	263	266	277	303	341	312	267	302
Barron	507	600	599	575	578	731	652	699	651
Bayfield	182	189	196	164	208	254	199	164	202
Brown	1,627	1,741	1,702	1,736	1,927	2,464	2,414	2,504	2,727
Buffalo	172	190	196	193	230	250	255	234	235
Burnett	115	138	135	108	146	158	166	130	130
Calumet	255	287	292	296	327	389	444	501	468
Chippewa	592	624	657	606	749	875	872	827	842
Clark	505	522	517	516	580	662	625	604	657
Columbia	669	719	707	689	758	830	873	846	829
Crawford	342	303	317	355	347	425	385	361	368
Dane	2,274	2,421	2,438	2,570	3,009	3,611	3,468	3,661	3,694
Dodge	584	558	632	593	630	808	719	787	760
Door	295	320	311	314	317	360	394	375	387
Douglas	608	757	586	569	644	799	756	695	714
Dunn	319	332	347	325	385	388	401	363	382
Eau Claire	780	779	794	809	939	1,121	1,106	1,079	1,118
Florence	44	34	43	45	63	67	60	52	64
Fond du Lac	1,063	1,111	1,023	1,064	1,234	1,510	1,519	1,466	1,542
Forest	121	120	110	113	121	150	128	143	134
Grant	710	660	652	696	777	875	839	861	907
Green	310	317	310	329	375	466	384	447	427
Green Lake	228	233	214	269	289	333	339	314	314
Iowa	241	261	250	268	328	330	359	362	349
Iron	151	144	121	116	118	147	141	110	121
Jackson	195	249	198	233	220	303	262	279	281
Jefferson	707	752	714	742	816	983	961	1,015	1,031
Juneau	307	302	302	278	345	354	340	359	368
Kenosha	1,032	1,042	1,054	1,103	1,326	1,664	1,563	1,680	1,635
Kewaunee	314	315	342	327	314	371	368	318	406
La Crosse	1,042	930	993	944	1,221	1,394	1,220	1,359	1,318
Lafayette	244	240	282	259	315	332	340	422	315
Langlade	293	343	302	323	372	427	409	429	448
Lincoln	336	321	281	349	364	440	423	404	345
Manitowoc	1,058	1,071	1,071	1,087	1,160	1,509	1,357	1,449	1,408
Marathon	1,110	1,163	1,114	1,056	1,238	1,500	1,478	1,461	1,584
Marinette	506	608	555	565	602	747	687	680	718
Marquette	104	116	126	99	111	112	121	134	113
Menominee	Go to Shawano -- no high schools								
Milwaukee	9,585	10,672	10,397	10,735	12,453	14,927	14,183	14,655	14,751
Monroe	513	432	423	421	517	567	562	525	516
Oconto	376	383	342	373	389	438	419	418	412
Oneida	356	328	278	307	370	456	430	430	475

County	1960	1961	1962	1963	1964	1965	1966	1967	1968
Outagamie	1,307	1,423	1,335	1,436	1,750	2,015	1,968	2,068	2,173
Ozaukee	339	333	392	492	558	686	727	799	777
Pepin	138	168	153	149	174	171	136	194	178
Pierce	319	373	359	377	446	503	497	474	516
Polk	441	475	441	432	451	525	532	469	503
Portage	490	477	466	548	619	670	665	675	674
Price	207	197	206	179	217	252	258	267	238
Racine	1,492	1,565	1,552	1,662	1,906	2,492	2,327	2,522	2,527
Richland	258	211	194	165	202	206	203	206	203
Rock	1,281	1,343	1,327	1,399	1,531	1,948	1,749	1,964	1,952
Rusk	275	301	253	262	287	353	325	296	281
St. Croix	368	355	368	395	425	500	495	520	523
Sauk	532	550	558	610	648	751	707	779	758
Sawyer	113	137	147	144	140	165	152	164	155
Shawano	503	555	497	465	512	488	520	584	514
Sheboygan	1,152	1,180	1,123	1,082	1,286	1,579	1,527	1,536	1,544
Taylor	248	236	251	257	281	314	318	347	319
Trempealeau	404	423	404	439	464	493	519	458	500
Vernon	357	421	372	405	457	462	498	448	462
Vilas	70	81	77	88	79	95	114	95	111
Walworth	621	682	699	667	792	942	909	955	909
Washburn	194	218	196	200	216	211	207	218	209
Washington	621	589	601	671	770	863	917	981	1,044
Waukesha	1,906	2,039	2,006	2,175	2,504	3,194	3,306	3,389	3,645
Waupaca	527	636	588	603	635	721	778	764	783
Waushara	136	138	137	142	153	162	181	153	189
Winnebago	1,193	1,316	1,241	1,278	1,372	1,782	1,784	1,914	1,819
Wood	829	867	864	838	1,068	1,251	1,179	1,242	1,200
TOTAL	47,440	50,250	49,062	50,408	57,536	68,748	66,518	68,426	69,247
Total Public	39,921	42,877	41,402	42,582	48,304	58,829	57,325	59,449	60,282
Total Private	7,519	7,373	7,660	7,826	9,232	9,919	9,193	8,977	8,965

*1960-1963 statistics from CCHE. 1964-1968 statistics from Department of Public Instruction. Prior to 1964, Department of Public Instruction did not collect data from private high schools.

The weighting of the graduating classes resulted in the weighted high school graduates by program presented in Table III.

TABLE III

WEIGHTED HIGH SCHOOL GRADUATES BY PROGRAM

High School Graduates		Weighted High School Graduates				
Year	No.	Fall	Total Enrollment	College Transfer	Associate Degree	Vocational Diploma
1963-64	57,536					
1964-65	68,748					
1965-66	66,518					
1966-67	68,426	1967	67,648	68,132	68,208	67,812
1967-68	69,247	1968	68,934	68,888	69,004	68,960
1968-69	73,125*	1969	71,961	72,093	72,404	72,089
1969-70	74,782*	1970	73,886	74,055	74,290	74,025
1970-71	77,977*	1971	74,551	74,794	74,857	74,656

*Projections of State Department of Public Instruction.

Since there was no experience of the relationship between weighted high school graduates and new vocational-technical-adult students prior to the fall of 1967, the relationship for the fall of 1968 was computed and, for the College Transfer and Associate Degree programs, that relationship was increased according to the experienced proportional increase for the combined University of Wisconsin and State University campuses for the period 1964 to 1967. For the Vocational Diploma program, the 1968 relationship was increased each year by half the increase experienced from 1967 to 1968 for that program.

The estimated new students of one year by program then were survived to the "other" students in the respective program by applying the factor relationship experienced of "other" students by program in the fall of 1968 to the new students in the program in the fall of 1967.

The basic results of the procedure outlined are presented in Tables IV through VII.

Apprenticeship sequences may begin at any time during the year. Therefore enrollments in the fall are not a good measure of the total enrollments even for a semester. Also, there is no comparability of reporting of new students in apprenticeship programs from year to year. Therefore, to arrive at a reasonable figure

TABLE IV

ESTIMATES OF FOUR PROGRAM TOTAL ENROLLMENTS FALL 1969, 1970 AND 1971

High School Graduates		Estimates of Enrollment					
Year	Weighted H.S. Grads	Fall	Relationship New Students to Weighted H.S. Grads	New Students	Relationship New Students to All Other Students	All Other Students	Total Enrollment
1966-67*	67,648	1967	16.080	10,878		17,082	27,960
1967-68*	68,934	1968	18.310	12,622	172.964	18,815	31,437
1968-69	71,961	1969	18.711	13,465	172.964	21,832	35,297
1969-70	73,886	1970	19.577	14,465	172.964	23,290	37,755
1970-71	74,551	1971	20.445	15,242	172.964	25,019	40,261

*Actual

TABLE V

ESTIMATES OF COLLEGE TRANSFER ENROLLMENTS FALL 1969, 1970, AND 1971

High School Graduates		Estimates of Enrollment					
Year	Weighted H.S. Grads	Fall	Relationship New Students to Weighted H.S. Grads	New Students	Relationship New Students to All Other Students	All Other Students	Total Enrollment
1966-67*	68,132	1967	2.146	1,462		2,721	4,183
1967-68*	68,888	1968	2.249	1,549	211.423	3,091	4,640
1968-69	72,093	1969	2.256	1,626	211.423	3,275	4,901
1969-70	74,055	1970	2.311	1,711	211.423	3,438	5,149
1970-71	74,794	1971	2.367	1,770	211.423	3,617	5,387

*Actual

TABLE VI

ESTIMATES OF ASSOCIATE DEGREE ENROLLMENTS FALL 1969, 1970, AND 1971

High School Graduates		Estimates of Enrollment					
Year	Weighted H.S. Grads	Fall	Relationship New Students to Weighted H.S. Grads	New Students	Relationship New Students to All Other Students	All Other Students	Total Enrollment
1966-67*	68,208	1967	6.505	4,437		6,118	10,555
1967-68*	69,004	1968	6.789	4,685	150.462	6,676	11,361
1968-69	72,404	1969	6.942	5,026	150.462	7,049	12,075
1969-70	74,290	1970	7.112	5,284	150.462	7,562	12,846
1970-71	74,857	1971	7.284	5,453	150.462	7,950	13,403

*Actual

TABLE VII

ESTIMATES OF VOCATIONAL DIPLOMA ENROLLMENTS FALL 1969, 1970, AND 1971

High School Graduates		Estimates of Enrollment					
Year	Weighted H.S. Grads	Fall	Relationship New Students to Weighted H.S. Grads	New Students	Relationship New Students to All Other Students	All Other Students	Total Enrollment
1966-67*	67,812	1967	6.825	4,628		4,492	9,120
1967-68*	68,960	1968	7.960	5,489	105.164	4,867	10,356
1968-69	72,089	1969	8.437	6,082	105.164	5,772	11,854
1969-70	74,025	1970	8.914	6,599	105.164	6,396	12,995
1970-71	74,656	1971	9.391	7,011	105.164	6,940	13,951

*Actual

of fall apprenticeship enrollments to be added to those of the other three programs for facility and budget planning purposes, the enrollments of the other three programs were subtracted from the total estimated enrollments of the four combined programs. There was a variable number of "unclassified" students; these were included as part of the apprenticeship enrollments. The fourth grouping, therefore, is that of apprenticeship and unclassified.

Long-Range Projections

The base for the long-range projections is the births in the state of Wisconsin and the relationship between births and new students. In the Vocational-Technical-Adult schools, there is a rather broad range of ages of new students; the range of ages varies also from program to program. Therefore, the most recent experience (fall of 1968) of distribution of new students by ages which encompassed the majority of new students was used. The proportion by age for each program varied; therefore the ages were weighted according to the proportion of new students by age for each of the four programs. The weighting factors are presented in Table VIII.

TABLE VIII

SYSTEM OF WEIGHTS BY AGE* BY PROGRAM

Age	Total Enrollment	College Transfer	Associate Degree	Vocational Diploma
17	.2327	.1690	.2219	.2756
18	.5142	.5194	.5555	.4922
19	.1817	.2176	.1652	.1718
20	.0714	.0940	.0574	.0604

*These ages supplied 69.3 percent of the new students in the total enrollment; 73.0 percent of the new college transfer students; 72.9 percent of the new associate degree students; and 70.1 percent of the new vocational diploma students.

The weighting of the births resulted in the weighted ages by program presented in Table IX. Births were converted to the births from September 1 of one year through August 31 of the following year; for example, the births for 1947 of Table VIII are two-thirds of the 1947 births plus one-third of the 1946 births.

TABLE IX

WEIGHTED AGES BY PROGRAM

Births		Weighted Ages				
Year	Sept. 1 - August 31	Fall	Total Enrollment	College Transfer	Associate Degree	Vocational Diploma
1947	81,331					
1948	82,730					
1949	82,727					
1950	82,637	1967	82,607	82,581	82,627	82,618
1951	86,001	1968	83,440	83,232	83,401	83,582
1952	88,567	1969	85,753	85,394	85,827	85,932
1953	88,586	1970	87,681	87,453	87,806	87,773
1954	90,516	1971	88,847	88,665	88,863	88,958
1955	92,079	1972	90,390	90,176	90,432	90,496
1956	93,108	1973	91,785	91,584	91,849	91,884
1957	95,431	1974	93,277	93,033	93,304	93,415
1958	96,099	1975	94,925	94,723	95,002	95,014
1959	97,662	1976	96,128	95,937	96,163	96,235
1960	99,168	1977	97,569	97,367	97,610	97,674
1961	98,788	1978	98,586	98,487	98,659	98,618
1962	95,810	1979	98,084	98,261	98,126	97,964
1963	92,569	1980	95,838	96,226	95,775	95,632
1964	89,808	1981	92,959	93,392	92,849	92,740
1965	84,916	1982	89,600	90,146	89,523	89,297
1966	81,248	1983	85,498	86,080	85,350	85,208
1967	77,335	1984	81,615	82,189	81,477	81,317

Since enrollment data for the Vocational-Technical-Adult schools are not complete prior to 1967 and therefore not comparable with the 1967 or 1968 enrollment data, past trends between new student enrollments and weighted age groups could not be established. Therefore it was assumed that, for the college transfer and associate degree programs, the future increase in the relationships would follow the pattern of the experience of the combined University of Wisconsin and State University campuses new freshman enrollments. The average gain in the relationship for the three-year period of 1964 through 1967 was projected forward on the basis of one-half the increase per year for five years and one-fourth of the increase per year for the remainder of the years during the projection period.

For the vocational diploma program, the fall 1968 relationship between the new student enrollment and the weighted age group was increased per year through 1972 by approximately one-half of the increase in the relationship from 1967 to 1968; for the remaining years, the increase in the relationship per year was computed as one-fourth of the gain from 1967 to 1968.

The procedure should result in conservative projections. It is the belief that the projections for the four programs combined will be more accurate than the projections for the separate programs. This is especially true of the college transfer program since there has been no experience for the Rhinelander college transfer program. The projections for the statewide college transfer program, therefore, are for the Madison Area Technical College and the Milwaukee Technical College only.

The projected new students of one year by program were survived to the "other" students in the respective program by applying the factor relationship experienced of "other" students in the fall of 1968 to the new students in the program in the fall of 1967.

The basic results of the procedure outlined are presented in Tables X-XIII.

As explained in the section of procedures for short-range estimates, data for apprenticeship enrollments and unclassified enrollments for 1967 and 1968 did not appear comparable. Therefore the projections for apprenticeship and unclassified combined are the result of subtracting the projections by year of the composite college transfer, associate degree, and vocational diploma projections from the projections of the four combined programs--total enrollment.

ESTIMATES AND PROJECTIONS

It is recognized that the background enrollment data for making the estimates and projections, as pointed out earlier in this report, leave much to be desired and that the estimates and projections for the combined college transfer, associate degree, vocational diploma, and apprenticeship enrollments probably are more realistic than the estimates and projections for the separate programs.

The estimates and projections will be subject to revision as better data become available. As indicated earlier, it probably will be four to five years before sufficient and comparable historical data, on which to make estimates and projections with a good deal of confidence, will be available. Irrespective, this report can serve two important needs: (1) to set up the methodology for estimates and projections and (2) to indicate the general expectation of future enrollments in the Vocational-Technical-Adult system.

The estimates and projections are made on the basis of the best data available and according to the specified procedures. In the absence of adequate data and knowledge of the effect of area districting, certain assumptions were made.

TABLE X

PROJECTIONS OF FOUR PROGRAM TOTAL ENROLLMENTS
FALL 1969 - FALL 1984

Year	Weighted Age Group	Projections of Enrollment				
		Relationship New Students to Weighted Age Group	New Students	Relationship New Students to All Other Students	All Other Students	Total Enrollment
1967*	82,607	13.168	10,878		17,082	27,960
1968*	83,440	15.127	12,622	172.964	18,815	31,437
1969	85,753	15.454	13,252	172.964	21,832	35,084
1970	87,681	16.182	14,189	172.964	22,921	37,110
1971	88,847	16.912	15,026	172.964	24,542	39,568
1972	90,390	17.641	15,946	172.964	25,990	41,936
1973	91,785	18.006	16,527	172.964	27,581	44,108
1974	93,277	18.371	17,136	172.964	28,586	45,722
1975	94,925	18.735	17,784	172.964	29,639	47,423
1976	96,128	19.100	18,360	172.964	30,760	49,120
1977	97,569	19.465	18,992	172.964	31,756	50,748
1978	98,586	19.782	19,502	172.964	32,849	52,351
1979	98,084	20.100	19,715	172.964	33,731	53,446
1980	95,838	20.416	19,566	172.964	34,100	53,666
1981	92,959	20.734	19,274	172.964	33,842	53,116
1982	89,600	21.052	18 863	172.964	33,337	52,200
1983	85,498	21.370	18,271	172.964	32,626	50,897
1984	81,615	21.687	17,700	172.964	31,602	49,302

*Actual

TABLE XI

PROJECTIONS OF COLLEGE TRANSFER ENROLLMENTS
FALL 1969 - FALL 1984

Year	Weighted Age Group	Projections of Enrollment				
		Relationship New Students to Weighted Age Group	New Students	Relationship New Students to All Other Students	All Other Students	Total Enrollment
1967*	82,581	1.770	1,462		2,721	4,183
1968*	83,232	1.861	1,549	211.423	3,091	4,640
1969	85,394	1.907	1,628	211.423	3,275	4,903
1970	87,453	1.953	1,708	211.423	3,442	5,150
1971	88,665	1.999	1,772	211.423	3,611	5,383
1972	90,176	2.022	1,823	211.423	3,746	5,569
1973	91,584	2.045	1,873	211.423	3,854	5,727
1974	93,033	2.068	1,924	211.423	3,960	5,884
1975	94,723	2.091	1,981	211.423	4,068	6,049
1976	95,937	2.114	2,028	211.423	4,188	6,216
1977	97,367	2.125	2,069	211.423	4,288	6,357
1978	98,487	2.136	2,104	211.423	4,374	6,478
1979	98,261	2.148	2,111	211.423	4,448	6,559
1980	96,226	2.159	2,078	211.423	4,463	6,541
1981	93,392	2.171	2,028	211.423	4,393	6,421
1982	90,146	2.182	1,967	211.423	4,288	6,255
1983	86,080	2.194	1,889	211.423	4,159	6,048
1984	82,189	2.206	1,813	211.423	3,994	5,807

*Actual

TABLE XII

PROJECTIONS OF ASSOCIATE DEGREE ENROLLMENTS
FALL 1969 - FALL 1984

Year	Weighted Age Group	Projections of Enrollment				
		Relationship New Students to Weighted Age Group	New Students	Relationship New Students to All Other Students	All Other Students	Total Enrollment
1967*	82,627	5.370	4,437		6,118	10,555
1968*	83,401	5.617	4,685	150.462	6,676	11,361
1969	85,827	5.728	4,916	150.462	7,049	11,965
1970	87,806	5.868	5,152	150.462	7,397	12,549
1971	88,863	6.009	5,340	150.462	7,752	13,092
1972	90,432	6.150	5,562	150.462	8,035	13,597
1973	91,849	6.220	5,713	150.462	8,369	14,082
1974	93,304	6.291	5,870	150.462	8,596	14,466
1975	95,002	6.361	6,043	150.462	8,832	14,875
1976	96,163	6.432	6,185	150.462	9,092	15,277
1977	97,610	6.502	6,347	150.462	9,306	15,653
1978	98,659	6.538	6,450	150.462	9,550	16,000
1979	98,126	6.573	6,450	150.462	9,705	16,155
1980	95,775	6.608	6,329	150.462	9,705	16,034
1981	92,849	6.643	6,168	150.462	9,523	15,691
1982	89,523	6.679	5,979	150.462	9,280	15,259
1983	85,350	6.714	5,730	150.462	8,996	14,726
1984	81,477	6.749	5,499	150.462	8,621	14,120

*Actual

TABLE XIII

PROJECTIONS OF VOCATIONAL DIPLOMA ENROLLMENTS
FALL 1969 - FALL 1984

Year	Weighted Age Group	Projections of Enrollment				
		Relationship New Students to Weighted Age Group	New Students	Relationship New Students to All Other Students	All Other Students	Total Enrollment
1967*	82,618	5.602	4,628		4,492	9,120
1968*	83,582	6.567	5,489	105.164	4,867	10,356
1969	85,932	6.976	5,995	105.164	5,772	11,767
1970	87,773	7.386	6,483	105.164	6,305	12,788
1971	88,958	7.795	6,934	105.164	6,818	13,752
1972	90,496	8.205	7,425	105.164	7,292	14,717
1973	91,884	8.410	7,727	105.164	7,808	15,535
1974	93,415	8.614	8,047	105.164	8,126	16,173
1975	95,014	8.819	8,379	105.164	8,463	16,842
1976	96,235	9.023	8,683	105.164	8,812	17,495
1977	97,674	9.229	9,014	105.164	9,131	18,145
1978	98,618	9.433	9,303	105.164	9,479	18,782
1979	97,964	9.638	9,442	105.164	9,783	19,225
1980	95,632	9.842	9,412	105.164	9,930	19,342
1981	92,740	10.047	9,318	105.164	9,898	19,216
1982	89,297	10.252	9,155	105.164	9,799	18,954
1983	85,208	10.457	8,910	105.164	9,628	18,538
1984	81,317	10.661	8,669	105.164	9,370	18,039

*Actual

Assumptions

If experience does not agree with the following assumptions, or if decisions and policies reached do not follow the assumptions, the estimates and projections will be in error. It should be kept in mind that the making of projections is a continuing process and that the projections should be reviewed annually. A primary purpose of projections is to allow the decision-making process to be as intelligent as possible in planning the future of post-secondary education.

In the projections, it is assumed that:

1. The effects of mortality, migration, and further education in the future will follow the pattern of the past but that the proportion of youth who desire a post-secondary education in the future will increase at a decreasing rate.

2. The attraction to the Vocational-Technical-Adult schools will increase more rapidly than for the combined undergraduates to the University of Wisconsin and State University campuses. The projections indicate an increase in total enrollments of 71 percent, from 1968 to 1980, in the Vocational-Technical-Adult schools as compared with a 52 percent increase for the combined undergraduate enrollments on the University of Wisconsin and State University campuses.

3. The effect of drafts and enlistments will about balance the effects of men discharged from service.

4. Economic growth will increase the ability of individuals to afford post-secondary education.

5. The need for individuals prepared through vocational-technical-adult programs will increase faster than the general population will.

6. The state and communities will continue to be committed to providing post-secondary education for all persons qualified and who desire such education.

7. The desire of post-secondary attendance will follow the pattern outlined in this paper in the section on procedure.

The Estimates and Projections

The estimates and projections are for statewide attendance at the Vocational-Technical-Adult schools. It is expected that, during the next fiscal year, projections will be made by area district.

The estimates are based upon high school graduation data whereas the projections are based upon age data--the latter being preferable for long-range projections since a record of actual births is available.

It appears logical to use high school graduation data for the estimates and age data for the projections since the two procedures yield almost the same results for the 1969, 1970, and 1971 years--the difference is less than three percent for any type of program of any of these three years (See Table XIV).

TABLE XIV

PERCENTAGE DIFFERENCE BETWEEN ESTIMATES BASED UPON HIGH SCHOOL GRADUATES AND PROJECTIONS BASED UPON AGES, 1969 - 1971

(A positive percentage indicates the former is the larger)

Fall	New Students				Total Enrollment			
	All Programs	Coll. Trans.	Assoc. Deg.	Voc. Dip.	All Programs	Coll. Trans.	Assoc. Deg.	Voc. Dip.
1969	1.61	-0.12	2.24	1.45	0.61	-0.04	0.91	0.74
1970	1.95	0.18	2.56	1.79	1.74	-0.02	2.37	1.62
1971	1.44	-0.11	2.12	1.11	1.75	0.07	2.38	1.45

The actual, estimated, and projected new student enrollments are presented in Table XV together with the percentage change for each program based upon the actual 1968 enrollments. Since there is less confidence in the apprenticeship and unclassified category of enrollments, the table includes the composite four-program enrollments and the composite omitting the apprenticeship and unclassified category. Table XVI has the actual, estimated, and projected total enrollments by program and for the composites of the programs.

One notes that the anticipated increase in enrollments is much greater percentagewise than is the increase in the pool from which the individuals come. Table XVII compares the anticipated increase in new student enrollments with the weighted age groups on which those anticipated enrollments are based. There is considerable variation between the percentage increase in anticipated new students by program.

TABLE XV

NEW STUDENT FALL ENROLLMENTS: ACTUAL 1967 AND 1968
ESTIMATED 1969 - 1971 AND PROJECTED 1972 - 1984
ALL VOCATIONAL-TECHNICAL-ADULT SCHOOLS
AND PERCENTAGE INCREASE BASED UPON FALL 1968 ENROLLMENTS

Year	All Programs		College Transfer		Associate Degree		Vocational Diploma		Apprentice and Unclass.		All Programs Excluding Apprentice and Unclass.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Actual Enrollments												
1967	10,878	-13.8	1,462	-5.6	4,437	-5.3	4,628	-15.7	351	-61.0	10,527	-10.2
1968	12,622	--	1,549	--	4,685	--	5,489	--	899	--	11,723	--
Estimated Enrollments												
1969	13,465	6.7	1,626	5.0	5,026	7.3	6,082	10.8	731	-18.7	12,734	8.6
1970	14,465	14.6	1,711	10.5	5,284	12.8	6,599	20.2	871	-3.1	13,594	16.0
1971	15,242	20.8	1,770	14.3	5,453	16.4	7,011	27.7	1,008	12.1	14,234	21.4
Projected Enrollments												
1972	15,946	26.3	1,823	17.7	5,562	18.7	7,425	35.3	1,136	26.4	14,810	26.3
1973	16,527	30.9	1,873	20.9	5,713	21.9	7,727	40.8	1,214	35.0	15,313	30.6
1974	17,136	35.8	1,924	24.2	5,870	25.3	8,047	46.6	1,295	44.0	15,841	35.1
1975	17,784	40.9	1,981	27.9	6,043	29.0	8,379	52.7	1,381	53.6	16,403	39.9
1976	18,360	45.5	2,028	30.9	6,185	32.0	8,683	58.2	1,464	62.8	16,896	44.1
1977	18,992	50.5	2,069	33.6	6,347	35.5	9,014	64.2	1,562	73.7	17,430	48.7
1978	19,502	54.5	2,104	35.8	6,450	37.7	9,303	69.5	1,645	83.0	17,857	52.3
1979	19,715	56.2	2,111	36.3	6,450	37.7	9,442	72.0	1,712	90.4	18,003	53.6
1980	19,566	55.0	2,078	34.2	6,329	35.1	9,412	71.5	1,747	94.3	17,819	52.0
1981	19,274	52.7	2,028	30.9	6,168	31.7	9,318	69.8	1,760	95.8	17,514	49.4
1982	18,863	49.4	1,967	27.0	5,979	27.6	9,155	66.8	1,762	96.0	17,101	45.9
1983	18,271	44.8	1,889	21.9	5,730	22.3	8,910	62.3	1,742	93.8	16,529	41.0
1984	17,700	40.2	1,813	17.0	5,499	17.4	8,669	57.9	1,719	91.2	15,981	36.3

TABLE XVI

TOTAL STUDENT FALL ENROLLMENTS: ACTUAL 1967 AND 1968
ESTIMATED 1969 - 1971 AND PROJECTED 1972 - 1984
ALL VOCATIONAL-TECHNICAL-ADULT SCHOOLS
AND PERCENTAGE INCREASE BASED UPON FALL 1968 ENROLLMENTS

Year	All Programs		College Transfer		Associate Degree		Vocational Diploma		Apprentice and Unclass.		All Programs Excluding Apprentice and Unclass.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Actual Enrollments												
1967	27,960	-11.1	4,183	-9.8	10,555	-7.1	9,120	-11.9	4,102	-19.3	23,858	-9.5
1968	31,437	--	4,640	--	11,361	--	10,356	--	5,080	--	26,357	--
Estimated Enrollments												
1969	35,297	12.3	4,901	5.6	12,075	6.3	11,854	14.5	6,467	27.3	28,830	9.4
1970	37,755	20.1	5,149	11.0	12,846	13.1	12,995	25.5	6,765	33.2	30,990	17.6
1971	40,261	28.1	5,387	16.1	13,403	18.0	13,951	34.7	7,520	48.0	32,741	24.2
Projected Enrollments												
1972	41,936	33.4	5,569	20.0	13,597	19.7	14,717	42.1	8,053	58.5	33,883	28.6
1973	44,108	40.3	5,727	23.4	14,082	24.0	15,535	50.0	8,764	72.5	35,344	34.1
1974	45,722	45.4	5,884	26.8	14,466	27.3	16,173	56.2	9,199	81.1	36,523	38.6
1975	47,423	50.9	6,049	30.4	14,875	30.9	16,842	62.6	9,657	90.1	37,766	43.3
1976	49,120	56.2	6,216	34.0	15,277	34.5	17,495	68.9	10,132	99.4	38,988	47.9
1977	50,748	61.4	6,357	37.0	15,653	37.8	18,145	75.2	10,593	108.5	40,155	52.4
1978	52,351	66.5	6,478	39.6	16,000	40.8	18,782	81.4	11,091	118.3	41,260	56.5
1979	53,446	70.0	6,559	41.4	16,155	42.2	19,225	85.6	11,507	126.5	41,939	59.1
1980	53,666	70.7	6,541	41.0	16,034	41.1	19,342	86.8	11,749	131.3	41,917	59.0
1981	53,116	69.0	6,421	38.4	15,691	38.1	19,216	85.6	11,788	132.0	41,328	56.8
1982	52,200	66.0	6,255	34.8	15,259	34.3	18,954	83.0	11,732	130.9	40,468	53.5
1983	50,897	61.9	6,048	30.3	14,726	29.6	18,538	79.0	11,585	128.1	39,312	49.2
1984	49,302	56.8	5,807	25.2	14,120	24.3	18,039	74.2	11,336	123.1	37,966	44.0

TABLE XVII

COMPARISON, OVER FALL 1968, OF PERCENTAGE INCREASES IN WEIGHTED AGE GROUPS* AND OF ESTIMATED AND PROJECTED NEW STUDENT ENROLLMENTS†

Fall	Total Enrollment		College Transfer		Associate Degree		Vocational Diploma	
	Weighted Age Group	New Students	Weighted Age Group	New Students	Weighted Age Group	New Students	Weighted Age Group	New Students
1968	--	--	--	--	--	--	--	--
1969	2.8	6.7	2.6	5.0	2.9	7.3	2.8	10.8
1970	5.1	14.6	5.1	10.5	5.3	12.8	5.0	20.2
1971	6.5	20.8	6.5	14.3	6.5	16.4	6.4	27.7
1972	8.3	26.3	8.3	17.7	8.4	18.7	8.3	35.3
1973	10.0	30.9	10.0	20.9	10.1	21.9	9.9	40.8
1974	11.8	35.8	11.8	24.2	11.9	25.3	11.8	46.6
1975	13.8	40.9	13.8	27.9	13.9	29.0	13.7	52.7
1976	15.2	45.5	15.3	30.9	15.3	32.0	15.1	58.2
1977	16.9	50.5	17.0	33.6	17.0	35.5	16.9	64.2
1978	18.2	54.5	18.3	35.8	18.3	37.7	18.0	69.5
1979	17.5	56.2	18.1	36.3	17.7	37.7	17.2	72.0
1980	14.9	55.0	15.6	34.2	14.8	35.1	14.4	71.5
1981	11.4	52.7	12.2	30.9	11.3	31.7	11.0	69.8
1982	7.4	49.4	8.3	27.0	7.3	27.6	6.8	66.8
1983	2.5	44.8	3.4	21.9	2.3	22.3	1.9	62.3
1984	-2.2	40.2	-1.3	17.0	-2.3	17.4	-2.7	57.9

*For numerical data on the weighted age groups, see Table IX.

†For numerical data on the estimated and projected new students, see Table XV.

It is pointed out that, despite an anticipated increase in the proportion of the age pool going to Vocational-Technical-Adult schools, the enrollments can be expected to decline beginning in 1980. One notes also that in 1984 the expected weighted age pool is smaller than it was in 1968 but that, due to expected increases in the proportions of the age group attending the Vocational-Technical-Adult schools, the number of new students can be expected to be about 55 percent higher than in 1968.